IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented): A system for despreading a spread spectrum signal using a pseudo-noise ("PN") code, wherein the spread spectrum signal comprises a plurality of signal samples, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of PN code chips, the system comprising:

a switch for selecting one of the in-phase portion and the quadrature-phase portion of a first signal sample of the plurality of signal samples;

a first multiplier coupled to the switch for multiplying the selected portion of the first signal sample with a first PN code chip of the plurality of PN code chips to obtain a first product, where the selected portion of the sample is first provided to an odd-even switch and is either an even portion or an odd portion of the selected portion of the first signal sample;

a second multiplier coupled to the switch for multiplying a selected portion of a second signal sample of the plurality of signal samples with the first PN code chip to obtain a second product, wherein the second signal sample succeeds the first signal sample where the selected portion of the second signal sample is first provided to the odd-even switch and is either an even portion or an odd portion of the selected portion of the second signal sample; and

a first adder coupled to the first multiplier and the second multiplier for adding the first product with the second product to obtain a first sum.

2. (canceled)

3. (Previously Presented): The system of claim 1 , further comprising:

a third multiplier coupled to a second switch for multiplying a selected portion of a third signal sample with a second PN code chip of the plurality of PN code chips, wherein the third

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signal sample succeeds the second signal sample and wherein the second PN code chip succeeds the first PN code chip and the selected portion of the third signal sample is selected with a second odd-even switch and is either an even portion or odd portion of the selected portion of the third signal sample;

a fourth multiplier coupled to the second switch for multiplying a selected portion of a fourth signal sample with the second PN code chip to obtain a fourth product, wherein the selected portion of the fourth signal sample succeeds the third signal sample and the selected portion of the fourth signal sample is provided to the second odd-even switch and is either an even portion or an odd portion of the selected portion of the fourth signal sample;

a second adder coupled to the third multiplier and the fourth multiplier for adding the third product with the fourth product to obtain a second sum; and

a third adder coupled to the first adder and the second adder for adding the first sum with the second sum.

4-5. (canceled).

6. (Previously Presented) A method for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal samples, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of PN code chips, the method comprising:

selecting one of the in-phase portion and the quadrature-phase portion of a first signal sample of the plurality of signal samples;

combining the selected portion of the first signal sample with a first PN code chip of the plurality of PN code chips to obtain a first product, where the selected portion is either an odd portion or an even portion of the selected portion of the first signal sample as selected by an odd-even switch;

combining the selected portion of a second signal sample of the plurality of signal samples with the first PN code chip to obtain a second product, wherein the second signal sample succeeds tile first signal sample, where the selected portion is either an odd portion or an even

portion of the selected portion of the second signal sample as selected by the odd-even switch; and

grouping the first product with the second product to obtain a first sum.

7. (canceled).

8. (Previously Presented): The method of claim 6, further comprising:

combining a selected portion of a third signal sample of the plurality of signal samples with a second PN code chip from the plurality of PN code chips to obtain a third product, wherein the third signal sample succeeds the second signal sample and wherein the second PN code chip succeeds the first PN code chip and the selected portion is either an odd portion or an even portion of the selected portion of the third signal sample as selected by a second odd-even switch;

combining the selected portion of a fourth signal sample of the plurality of signal samples with the second PN code chip to obtain a fourth product, wherein the fourth signal sample succeeds the third signal sample and the selected portion is either an odd portion or an even portion of the selected portion of the fourth signal sample as selected by the second odd-even switch;

grouping the third product with the fourth product to obtain a second sum; and

grouping the first sum with the second sum.

9. (canceled).

10. (Previously Presented): The method of claim 6, further comprising:

combining a selected portion of a third signal sample of the plurality of signal samples with a second PN code chip of the plurality of PN code chips to obtain a third product, wherein the third signal sample succeeds the second signal sample;

combining a selected portion of a fourth signal sample of the plurality of signal samples with a third PN code chip of the plurality of PN code chips to obtain a fourth product, wherein

the fourth signal sample succeeds the third signal sample and wherein the third PN code chip succeeds the second PN code chip;

grouping the third product with the fourth product to obtain a second sum; and

grouping the first sum with the second sum.

11-15. (canceled).

16. (Previously Presented): A computer-readable medium having software for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal samples, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of PN code chips, the computer-readable medium comprising:

means for selecting one of the in-phase portion and the quadrature-phase portion of a first signal sample of the plurality of signal samples;

means for selecting one of an even PN code stage and an odd PN code stage from a first PN code chip of the plurality of PN code chips;

means for multiplying the selected portion of the first signal sample with the selected PN code stage to obtain a first product; and

means for multiplying the selected portion of a second signal sample of the plurality of signal samples with the first PN code to obtain a second product, wherein the second signal sample succeeds the first signal sample; and

means for adding the first product with the second product to obtain a first sum.

17. (canceled).

18. (Previously Presented): The computer-readable medium of claim 16, further comprising:

means for multiplying a selected portion of a third signal sample of the plurality of signal samples with a second PN code chip of the plurality of PN code chips to obtain a third product, wherein the third signal sample succeeds the second signal sample wherein the second PN code chip succeeds the first PN code chip;

means for multiplying a selected portion of a fourth signal sample of the plurality of signal sample with the second code chip to obtain a fourth product, wherein the fourth signal sample succeeds the third signal sample;

means for adding the third product with the fourth product to obtain a second sum; and

means for adding the first sum with the second sum.

19. (canceled).

20. (Previously Presented): The computer-readable medium of claim 16, further comprising:

means for multiplying a selected portion of a third signal. simple of the plurality of signal samples with a second PN code chip of the plurality of PN code chips to obtain a third product, wherein the third signal sample succeeds the second signal sample;

means for multiplying a selected portion of a fourth signal sample of the plurality of signal samples with a third PN code chip of the plurality of PN code chips to obtain a fourth product, wherein the fourth signal sample succeeds the third signal sample and the third PN code chip succeeds the second PN code chip;

means for adding the third product with the fourth product to obtain a second sum; and

means for adding the first sum with the second sum.

21. (Previously Presented): A system for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal sample pairs, each signal sample pair comprising an even signal sample and an odd signal sample, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of PN code chips, the system comprising:

a first switch for selecting one of the in-phase portion and the quadrature-phase portion of a first signal sample pair of the plurality of signal sample pairs;

a second switch coupled to the first switch for selecting one of the even sample and the odd sample of the selected portion of the first signal sample air; and

a first multiplier coupled to the second switch for multiplying the selected portion of the selected sample of the first signal sample pair with a first PN code chip of the plurality of PN code chips to obtain a first product.

22. (Previously Presented) The system of claim 21, further comprising:

a second multiplier coupled to the second switch for multiplying a selected portion of the selected sample of a second signal sample pair of the plurality of signal sample pairs with a second PN code chip of the plurality of PN code chips to obtain a second product, wherein the second signal sample pair succeeds the first signal sample pair, and the second PN code chip succeeds the first PN code chip; and

an adder coupled to the first multiplier and the second multiplier far adding the first product with the second product to obtain a first sum.

23. (canceled)

24. (canceled).

25. (Currently Amended): A method for despreading a spread spectrum signal using a PN code in a matched filter, wherein the spread spectrum signal comprises a plurality of signal sample pairs, each signal sample pair comprising an even signal sample and an odd signal sample, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of PN code chips, the method comprising:

selecting one of the in-phase portion and the quadrature-phase portion of a first signal sample air of the plurality of signal sample pairs;

selecting one of the even sample and the odd sample of the selected portion of the first signal sample pair; and

combining the selected portion of the selected sample of the first signal sample pair with a first PN code chip of the plurality of PN code chips to obtain a first product.

26. (Previously Presented): The method of claim 25, further comprising:

combining a selected portion of the selected sample of a second signal sample pair of the plurality of signal sample pairs with a second PN code chip of the plurality of PN code chips to obtain a second product, wherein the second signal sample pair succeeds the first signal sample pair and the second PN code chip succeeds the first PN code chip; and

grouping the first product with the second product to obtain a first sum.

27-32. (canceled).

33. (Previously Presented): A computer-readable medium having software for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal sample pairs, each pair comprising an even signal sample and an odd signal sample, each signal sample having an in-phase portion and a quadrature-portion, and wherein the PN code comprises a plurality of PN code chips, the computer-readable medium comprising:

means for selecting one of the in-phase portion and the quadrature-phase portion of a first signal sample pair of the plurality of signal sample pairs;

means for selecting one of the even sample and the odd sample of the selected portion of the first signal sample pair; and

means for multiplying the selected portion of the selected sample of the first signal sample pair with the first PN code chip to obtain a first product.

34. (Previously Presented): The computer-readable medium of claim 33, further comprising:

means for multiplying the selected portion of the selected sample of a second signal sample pair of the plurality of signal sample pairs with a second PN code chip of the plurality of PN code chips to obtain a second product, wherein the second signal pair succeeds the first signal sample pair, and the second PN code chip succeeds the first PN code chip;

means for adding the first product with the second product to obtain a first sum.

35-65. (canceled).